REMARKS

Claims 14-16, 19-23, 27-30, and 32-36 are amended herein. Claims 14-39 are pending in the captioned case. Further examination and reconsideration of the presently claimed application are respectfully requested.

Allowable Subject Matter

While Applicants appreciate and agree with the indication that claims 26 and 39 contain allowable subject matter, it is nonetheless asserted that all pending claims are patentably distinct over the cited art as set forth in more detail below.

Section 112 Rejection

An objection was lodged against claims 15 and 28 under 35 U.S.C. § 112, second paragraph, as being indefinite. To expedite prosecution, claims 15 and 28 are amended herein in a manner believed to obviate this rejection.

An objection was lodged against claims 24, 25, 37, and 38 under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the term "consumer" was cited as unclear. In response thereto, a consumer can be considered as a current or power load or "sink" as known to one skilled in the art, and is referred in the specification as a consumer of power or current, such as "detectors or data processing systems" or "x-ray tubes" (Substitute Specification -- pg. 1, lines 7-11; pg. 5, lines 10-12 and lines 21-23). Accordingly, in light of support in the specification for the definition of "consumer," Applicants respectfully request removal of this rejection.

An objection was lodged against claims 32-33 under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Office Action states "it is unclear how the DC/AC converters, being on the stationary part, are able to supply power to the conductor arrangement being on the rotating part" (Office Action, pg. 2). As set forth in the specification, DC/AC converters, either on the rotating part or the stationary part are able to transfer power using well-

known electromagnetic induction between a conductor on one part and an inductive coupler on another part. Regardless of whether the conductor (or the inductive coupler) receives the DC/AC converted power, that power can be transferred to the other part which has either an inductive coupler or a conductor, depending on the embodiment claimed. Thus, the DC/AC converters on a stationary part can supply power to the rotating part through the electromagnetic induction between the corresponding conductor and inductive coupler pair (Substitute Specification -- pg. 11, lines 7-12; pg. 12, lines 1-3). Accordingly, Applicants respectfully request removal of this rejection.

Section 102 Rejection

Claims 27 and 29-36 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,674,836 to Harada (hereinafter "Harada"). The standard for "anticipation" is one of fairly strict identity. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art of reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP 2131. Furthermore, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, as arranged in the claim. *W.L. Gore & Assocs. V. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983). Using these standards, Applicants submit the cited art fails to disclose each and every element of the currently pending claims, some distinctive features of which are set forth in more detail below.

Harada does not teach or suggest an inductive coupler that (i) partially surrounds a conductor, (ii) along the length of the conductor as the conductor moves. Present claim 27 is amended to recite the specific arrangement and unique coupling between a conductor and an inductive coupler. Specifically, claim 27 describes that which is illustrated in present Figs. 2, 3, 5, and 6, for example. More particularly, a conductor 9 can be coupled through a support rod 23 to a stationary part 2 having a bearer means 41 (Specification -- Figs. 3, 5). An inductive coupler 8 partially surrounds the outer circumference of conductor 7. That inductive coupler 8 includes a u-shaped core 42 (Specification -- Fig. 5). While windings 43 can be placed around the core 42 of inductive coupler 8, there are no windings associated with the conductor 9. In fact, a benefit of the

present invention is the significant weight reduction and cost savings in the elimination of primary and secondary windings around the primary and secondary cores, such as found in Harada, for example. Instead, a single conductor or possibly two or more conductors (present Figs. 6, 7) allow electromagnetic induction between the core and windings of the inductive coupler and the conductor (absent a core and windings). By arranging the inductive coupler so that it partially surrounds the conductor (present Fig. 5), as the rotating part rotates and the conductor moves, the conductor movement will be maintained within the confines of the partially surrounding inductive coupler. For example, in the illustration of Fig. 5, the electrical conductor 9 would rotate out of the cross-section illustration or out of the page showing the cross-section illustration, yet always maintaining a distance between the outer surface of conductor 9 and the inward-facing surface of the inductive coupler/core. Thus, the inductive coupler not only partially surrounds the conductor, but surrounds the conductor along the length of the conductor as the conductor moves.

Contrary to present claim 27, Figs. 8-10 of Harada clearly illustrate that, as the secondary core 18 and secondary windings 19 move within the rotatable section 22, that movement of the conductor does not allow the inductive coupler 17 (that is stationary) to partially surround the moving conductor, nor the inductive coupler 17 or any component associated with that coupler to partially surround the length of the conductor as the conductor moves.

Harada teaches primary and secondary windings on primary and secondary cores for transfer of electromagnetic energy through use of transformers, not the claimed transfer between windings on one core and elongated conductor absent windings or core. Primary and secondary cores which magnetically engage with one another are not equivalent to an inductive coupler which engages with a conductor.

Although not cited against claim 27, Applicants also believe independent claim 27 to be patentable over Steigerwald. Steigerwald teaches a transformer-arranged system similar to Harada.

For at least the reasons set forth above, Applicants believe that independent claim 27 and claims dependent therefrom are not anticipated by Harada. Therefore, removal of this rejection is respectfully requested.

Section 103 Rejection

Claims 14 and 16-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Harada. Claims 15 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Harada in view of U.S. Patent No. 5,608,771 to Steigerwald (hereinafter "Steigerwald"). To establish a case of *prima facie* obviousness of a claimed invention, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Second, there must be a reasonable expectation of success. As stated in MPEP 2143.01, the fact that references can be hypothetically combined or modified is not sufficient to establish a *prima facie* case of obviousness. *See In re Mills*, 916 F.2d. 680 (Fed. Cir. 1990). Finally, the prior art references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d. 981 (CCPA 1974); MPEP 2143.03. Specifically, "all words in a claim must be considered when judging the patentability of that claim against the prior art." *In re Wilson* 424 F.2d., 1382 (CCPA 1970).

In response to the recent U.S. Supreme Court decision in *KSR Int'l Co. v. Teleflex, Inc.* (U.S. 2007), new guidelines were set forth for examining obviousness under 35 U.S.C. § 103. The U.S. Supreme Court reaffirmed the *Graham* factors and, while not totally rejecting the "teachings, suggestion, or motivation" test, the Court appears to now require higher scrutiny on the part of the U.S. Patent & Trademark Office. In accordance with the recently submitted guidelines, it is "now necessary to identify the reason" why a person of ordinary skill in the art would have combined the prior art elements, or at least describe the pertinence of the prior art elements set forth in the cited disclosure, in the manner presently claimed. Moreover, even if combined, the *Graham* factors require that a determination of the differences between the combined prior art and the claims at issue is needed. Using these standards, Applicants contend that the Office Action fails to identify the reasons for combining the cited references and, even if combined, fails to note substantial differences between the combined references and the claims at issue. Some distinctive features of the presently pending claims are set forth in more detail below.

Harada does not teach or suggest a conductor that (i) extends as a straight, arcuate line (ii) along a rotational path in which the rotating part rotates. Present claim 14 is amended to clarify the arrangement of the conductor that extends along a straight line, albeit arcuate. In other words, the conductor is that illustrated in present Figs. 9-10. While the conductor does not extend as a winding back and forth, it nonetheless extends as a straight line in a first plan, yet in a circular or arcuate line in another plane perpendicular to the first plane, along a rotational axis. That rotational axis or path is that of the rotational part.

Contrary to claim 14, Harada specifically illustrates conductors 16 and 19 on the primary and secondary windings of the transformer as being ones which do not extend along the rotational path of the rotational part 12 (Harada -- Fig. 1). Instead, primary windings 16 extends transverse to the rotational path, and in many instances perpendicular to that path (Harada -- Figs. 9, 10). Due to the theory of electromagnetic energy, it is imperative that the windings <u>not</u> extend along the rotational path of the rotational part if they are to operate as primary and secondary windings of primary and secondary cores of a transformer arrangement. Electromagnetic theory requires that the windings surround the core using the "right hand rule" to form the magnetic field, such that the magnetic fields can couple between the primary and secondary cores. If the windings were removed or modified such that on either the primary or secondary side the windings were straightened and placed along the rotational axis, the magnetic flux could not longer couple in a transfer arrangement. However, if transformers are not called for, as in the present invention, magnetic energy nonetheless surrounds a conductor that can be drawn off of an imparted two via a coupler placed in close proximity thereto.

Harada does not teach or suggest an inductive coupler that moves along the straight, arcuate line of the conductor. Present claim 14 clarifies that the inductive coupler moves along the straight, arcuate line of the conductor. As discussed above regarding claim 27, the movable coupler of core 18 in Harada does not move along the straight, arcuate line of conductor 16. As shown, conductor 16 in Fig. 10 of Harada extends transverse to the rotational movement of core 18 and, as the windings require, core 18 cannot move along the length of conductor 16 since a winding requires that the inward-facing conductor wind either downward or

upward, not along the rotational path in order to accommodate a conventional winding configuration.

For at least the reasons set forth above, Applicants believe present independent claim 14 and claims dependent therefrom are patentable over the cited art. In addition, dependent claim 28 is believed patentable over the cited art for at least the same reasons as base claim 27 discussed herein. Accordingly, removal of this rejection is respectfully requested.

CONCLUSION

The present amendment and response is believed to be a complete response to the issues raised in the Office Action mailed October 9, 2008. In view of the amendments and remarks herein, Applicants assert that pending claims 14-39 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Daffer McDaniel, LLP Deposit Account No. 50-3268.

Respectfully submitted,

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